

Notes from the 11/15/05 MI BPM Upgrade Meeting  
Bob Webber

These notes can be found in Beams docDB #1526.

Agenda as amended:

Project Announcements: Bob and Steve  
Combiner Board status: Marv, Tim, Bob Forster, Vince  
VME crate purchase status: Bob Forster  
Transition Board: Manfred, Stefano, Vince  
Signal cables: Manfred, Bob Forster  
Front-end software/MVME: Luciano, Steve, Margaret  
MI40 installation/preparation: Marv, Peter, Luciano, others  
Online software: Brian  
Validation: Rob Kutschke  
Timing Board: Bill  
AOB

0. Announcements - Bob and Steve

- None. Bob ran the meeting; Steve was in management training. He will return fully trained!

1. Combiner Board status : Bob Forster

- Leftover parts have been received from GAMA electronics. There are enough parts, except for 12 pf capacitors, for the non-combiner combiner boards. Bob Forster and Manfred will coordinate procuring the missing capacitors.

- The pc boards for the non-combiner combiner boards are here now.
- Tim Kasza's group will begin stuffing non-combiner boards shortly.

2. VME crate purchase status: Bob Forster

- The VME crates are due in ~4 weeks.
- Apparently, the UDP software in the crate is not functioning as needed, so Optilogic boxes will be procured.
- Bob Forster will requisition VME "air dam" slot fillers.

3. Transition Board: Manfred, Stefano, Vince, et al.

- Last week's review of board layout went well. Small changes have already been made as a result. Manfred will do final layout check and initiate requisition for boards by next week. There was discussion as to how to proceed with procurement, one req. just for sample boards or one req. for required quantity with early samples. One req. with early samples may be preferred; Manfred

will work with CD guys to get proper requisition into the system and through procurement.

- Manfred showed transparency on transition board gain and noise measurements.
- Stefano continues to work with Manfred on test signal generation, control, and distribution. An additional small PC board will be needed in transition board crate to drive test signals on backplane. Bill Haynes will do this board design.
- Bob W. raised question of what is the plan for transition board gain control. Consensus was that the measurement definition application program (son of I6) should provide gain information to the VME front-end in a form that requires no further processing or logic by the front-end code. Further consensus (to Bob's dismay) was that the application, at least initially, present user with control for gain setting in db and selection of HI/LOW gain range.
- Transition board card cages are on order.
- As of 1330 hrs. Tuesday, still no order placed for Lark RF filters. Apparently procurement is waiting for additional information from Lark.

#### 4. Signal cables: Bob Forster, Manfred

- The cable order still needs to be finalized and placed.
- Cable length of 20" is what is used in Tev for digitizer clock and trigger cables. Marv has confirmed that this will be acceptable for MI.
- Spreadsheet with the breakout of MI BPM and MI 8 cables and the details of which cables are needed for BPM to transition, transition to Echotek, timing board to Echotek, etc. has been generated and will be included in beams-doc-2012.
- Final changes to cable spec document will be made by tomorrow. These include: add quantity to cover RRBS clock signal cables, fix any problems with specification wording/spelling of the RG 316, add notification and identification concerning Fermilab supplied connectors and/or connector tooling.

#### 5. Front-end software/MVME: Luciano, Steve

- Luciano mentioned expectation that MDAT will provide information on number of expected injections from Booster for each cycle. It was not clear that Greg Vogel, who apparently indicated this was possible, understands or agrees that this is to be made available.

- Luciano and Steve are progressing on many of the jobs laid out in the plan for FE software. Much of this is being done in parallel and with help from and in collaboration with Charlie, Brian, and others.
- 2.5 MHz test signal has been made available by Ken Treptow, but problems seeing correct results through software remain. Steve and Luciano know they should call for help as needed.
- There was some discussion of the structure needed for timing information. Rob was asked by Bob W. to understand what is done in the Recycler BPM system and to think through the MI requirements and options.
- PMC UCD testing and code development for 5500 CPU still in progress.

#### 6. MI-40 Installation/Preparation

- IP request is in and Ethernet connection expected today.
- Marv has crate and timing and MDAT cables installed.
- Dave C. will work with Marv to identify one or more BPM signals that are acceptable to be split for use with development crate.

#### 7. Timing Board: Bill

- Bill has completed preliminary tests of first new timing board; awaiting front panel from shop. Assembly of the second board will follow.
- Bill is hopeful that the first board will be sufficiently tested so as to be ready to support MI-40 crate by next week.

#### 8. Online software: Brian

- Linden and Bob West believe they have there control and diagnostic applications respectively nearly ready to go. They are waiting for ACNET devices to be available in the front-end.

#### 9. Validation: Rob Kutschke

- Waiting for data.

#### 10. AOB

- None.